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### **Address to the General Assembly by IASE President Chris Wild**



On taking over the helm of IASE, I see that our outgoing President Carmen Batanero has left it in very good heart. Of course the great thing about the IASE structure is that Carmen automatically continues on the Executive as Past President for a further two years. She has also taken on the primary leadership role for ICOTS 7 to be held in Brazil in July 2006. The two most important things we in IASE are doing are the ICOTS series of conferences and our new journal SERJ. The ICOTS series has a proud history of success and the journal is gathering momentum. It takes a little while to establish a profile and change a culture where a substantial amount of publishing has been in hard-to-find edited volumes to one where almost all publishing is in key journals that, particularly in SERJ's case, everyone can obtain. A new project that shows a new way forward is the International Statistical Literacy Project (ISLP) with its annotated web pages of resources.

It is an exciting time to be in statistics education. It is a time of ferment and new possibilities. Some of these were vividly shown in our very successful Satellite Conference entitled Statistics and the Internet. In fact the conference ranged much more widely than that. But while exciting possibilities and their implementations are beginning to abound on the internet, or in other words tend to infinity, the time we have left in our days to pursue them is tending to zero. So what we now need from the internet is selection from profusion, guidance to those gold nuggets whose glitter is concealed by all the rest. Over the next few years I would like to see the IASE web pages become the primary source for information and comment about statistics education resources. The model must be the divide-and-conquer model that we are following with the ISLP webpages, subdivide the landscape into specialties that are small enough for individual volunteers to realistically stay on top of. Nothing else is sustainable.

IASE is a missionary arm of ISI, reaching out to nonstatisticians, but youth in particular, and to bring them into the fold. We are here because we believe that good statistics and creative but disciplined statistical thinking can bring substantial benefits to society and we want to be a part of making that happen. In his opening address, outgoing ISI President Dennis Trewin worried about the greying of ISI. And if the greying of ISI is due to the greying of the profession, the only solution is the infusion of young blood. This, in turn, results from the recruitment and retention of students through stimulating education programmes with clearly signposted career paths. This is not something to be left just to IASE members. Every member of ISI or any of the ISI sections should be concerned about educational outreach. And by "concerned" I do not mean "worried". Lamentations, the tearing out of hair and the rending of garments helps nobody. I mean actively contributing, feeding their colleagues at the educational coalface with ideas,

### *International Association for Statistical Education*

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IASE web page: <http://www.cbs.nl/isi/iase.html>

stories, case studies, data sets and research projects - with excitement for statistics and what it can do. Our current students, and any more that we might be able to attract, are the future life blood of your profession and your professional organisations so you too need to assist in ensuring that that life blood flows ever more strongly. And if IASE is falling short in some area that you care about (perhaps, for example, you think it is too fixated on that first university course) then maybe it is because you are not in there leading the charge for another priority. My conception of IASE is very simple - we will do anything that advances statistics education where we can find a champion to lead and volunteers to help. We need each and every one of you as a champion or a volunteer.

The last thing I want to do is make an announcement. The incoming Executive of the International Association for Statistics Education has voted to confer life membership on Former Presidents Maria-Gabriella Ottaviani and Brian Phillips. They have been volunteers and champions par excellence for IASE providing outstanding leadership of IASE and arduous conference organisation far above and beyond the call of duty for many years. We wish to make them lifetime members to honour them and thank them for those many contributions.

#### IASE EXECUTIVE 2003-2005



From left to right: Lisbeth Cordani (Vice-President, Brazil), Chris Wild (President, New Zealand), Carmen Batanero (Past-President, Spain), Chris Reading (Vice-President, Australia), Carol Joyce Blumberg (Vice-President, USA), Larry Weldon (Vice-President, Canada), Gilberte Schuyten (President-Elect, Belgium), Susan Starkings (Vice-President, UK)

#### HONORARY MEMBERS

IASE statutes give the possibility of nominating honorary members as a way of recognising the work and dedication of some of our members. It was with great pleasure that the IASE Executive Committee approved the nominations of both Maria-Gabriella Ottaviani and Brian Phillips, who were presidents in the period 1997-1999 and 1999-2001 and whose work has contributed significantly to the success and growth

of our Association. They join our two other honorary members David Moore and Anne Hawkins.



David Moore Anne Hawkins Maria Ottaviani Brian Phillips

#### REPORT ON IASE ACTIVITIES

##### IASE Satellite Conference on Statistics Education and the Internet, Berlin, Germany, August 11 –12, 2003

*Report by Timothy Dunne (South Africa)*

Our host, Professor Gerd Gigerenzer, opened the conference and explained the structure and work of the Max Planck Institute for Human Development (MPIHD), and the consequent resonance with that of the IASE. The necessity of numeracy and an appreciation of risk are essential foci of MPIHD research. The opening remarks led me to examine *inter alia* Gigerenzer's recent monograph 'Reckoning with risk'.

Eighteen invited speakers presented talks relating to the theme "Statistics Education and the Internet" – these talks were presented to the plenary sessions of approximately 60 registrants. In addition, a two-hour time slot was reserved for 15 poster sessions also directed to this same topic. Most of the invited papers were accepted as refereed papers by a review of at least two peers. A CD of the proceedings was produced containing all the invited papers, abstracts of the contributed poster sessions and a list of registrants. The papers from the conference are available electronically from the Publications page of the IASE website

<http://www.stat.auckland.ac.nz/~iase/>.

See also the original conference site at

<http://www.ph-ludwigsburg.de/iase/proceedings>.

Phillips (Australia) surveyed existing major websites for on-line learning and internet resources. A major development is the wide spread use of Java applets for dynamic interactions.

Belli (USA) discussed the vast number of websites purporting to offer statistical content and the need for criteria by which to evaluate sites. The vagaries of search engine algorithms and their contrasting outputs and sequences of sites require student awareness. Criteria suggested by Beck and Schrock may be of wide application and usefulness. The provenance of sites may be explored by WebWhacker and WebBuddy. A valuable statistical source is located at

<http://noppa5.pc.helsinki.fi/links.html>

Biehler (Germany) discussed inter-related learning and working environments to achieve guided discovery using authentic data, simulation and modelling. He made the case for a synergy of pedagogy and content, and the tool Fathom.

Podehl (Canada) reported on initiatives of Statistics Canada to support education at school and tertiary level by giving access to suitable data on social issues. Census-at-School is a part of a project to raise public opinion support for electronic census data collection at the next census in 2006.

Bljec (Slovenia) spoke about simulations on the internet. He distinguished between three types of data in use and the sorts of purposes they serve best. Resampling methods can illustrate both the effects of good sampling and bias arising from incorrect methods.

Kamps (Germany) discussed a German national research fund project emilia@stats run through a consortium of institutions to provide a statistical package for schools and teacher-training. For more information see <http://www.emilia.de>

Clarke (Australia) discussed sports statistics and regular website odds estimations as a vehicle for creating public interest in proximate issues.

Bregar (Slovenia) reported on challenges in teaching economic statistics. An integrated on-line distance education system in Ljubljana involved e-research seminars and an e-assignment to provide practical experience with real-life challenges.

Wild (New Zealand), Regan and Cunliffe reported on an Auckland initiative to provide a flexible learning environment to 3700 first course students. A move to a course CD and the use of flash format had served to diminish costs. Minitab and Excel links could support student exercises. The project was being extended to provide similar environments for second year courses. Haerdle (Germany) discussed two developments with the German national research programmes to support statistics education. A freeware package E-stat allows one to compose courses for internet use from modules prepared in LaTeX. LaTeX to XML conversions can use Excel as a front-end to a hidden statistically intelligent package, the commercially available Explore. A second package MM\*STAT has been translated into many user languages and translates LaTeX source into various structures of elements in html.

Godino (Spain) drew attention to the need for further inputs into resources available on NCTM's resource for (USA) elementary grade schools. Changes were motivated from the perspective of a flexible theoretical framework distinguishing 6 types of mathematical objects in 5 dual cognition facets.

Ograjensek (Slovenia) described a web-resourced course in economic statistics developed at University of Ljubljana for close to 1000 students.

Darius (Belgium) presented Vestac and Virtex packages for data description and experimental design and analysis. Simulation of experiments for realistic scenarios with time and cost constraints on repeated observations against a hidden model offers a powerful learning tool. A distance experiment with visualisation is under current development at <http://www.kuleuven.ac.be/ucs/virtex/>

Eichler (Germany) discussed the stochastic component of grade 13 material in a mathematical syllabus for schools, on the web package MaDiN. The philosophical underpinnings of the construction were described and related to the contents.

Lipson (Australia) and Konino reported upon a qualitative study involving three-hour interviews of 8 students, transcribed and examined with the aid of Invivo. A paradigm involving recognition, integration, contradiction and explanation was outlined.

Wisembaker (USA) offered a set of experiences of a successful course failing to achieve the same levels of success in subsequent web iterations. The need for web resources to be complemented by teacher-student interaction emerged as a plausible inference from the courses.

### **IASE Activities at the 54<sup>th</sup> Session of the International Statistical Institute, Berlin, Germany, August 13-20, 2003**



IASE organised a wide and varied list of topics at the 54<sup>th</sup> Session of the International Statistical Institute for Invited Paper Meetings, both those organised by the IASE alone and in conjunction with other ISI Sections and Committees and guest societies. The Chair of IASE Programme was Gilberte Schuyten, [gilberte.schuyten@ugent.be](mailto:gilberte.schuyten@ugent.be).

The 33 invited papers were well received as well as the discussions which continued long after the sessions had finished. The number of papers and the level of discussion are indicative of the growing interest in statistics education. Summaries of the Invited Paper Meetings with organisers, papers and discussants can be consulted in the IASE REVIEW 2003 which is available from the Publications page of the IASE website

<http://www.stat.auckland.ac.nz/~iase/>.

The invited papers from the IASE sessions are also available from the Publications page.

### FORTHCOMING IASE ACTIVITIES

#### IASE 2004 Research Round Table on Curricular Development in Statistics Education, Lund, Sweden, June 28 - July 3, 2004



The Round Table dates coordinate with those of the Tenth International Congress on Mathematical Education, which takes place in Copenhagen, Denmark 4-11 July 2004. Lena Zetterqvist (lena@maths.lth.se) and Ulla Holt will be local organisers. Those interested can contact Gail Burrill, Division of Science and Mathematics Education, College of Natural Science, Michigan State University, 116 North Kedzie, East Lansing MI 48824, USA, E-mail: burrill@msu.edu. The Roundtable will bring together a small number of experts, representing as many different countries as possible, to discuss one another's views and approaches to curriculum for teaching statistics. The Roundtable Conference will provide opportunities for developing better mutual understanding of common problems and for making recommendations concerning the statistics curriculum. A main outcome of the Roundtable will be a monograph containing a set of papers, which have been prepared for and discussed during the conference. The monograph will present a global overview of the conference that can serve as starting point for further research on issues related to the statistics curriculum.

The need for processing the increasing amount of data people receive in the course of their work and lives has made it imperative that students leave elementary and secondary schools prepared to make reasoned decisions based on sound statistical thinking. Countries and communities have approached this problem in different ways. The Roundtable will provide the opportunity for sharing what works and to highlight the challenges and potential solutions researchers have faced as they design and implement curricula to produce statistically literate citizens.

The IASE Scientific Program Committee will prepare the program and schedule for the Roundtable. The Committee has agreed on a list of topics that will form the basis of the discussions and invites those interested to send in a three-page summary of their proposed paper. The major topics to be addressed at the primary, secondary, tertiary, or in service levels are: Relationship between curriculum and assessment,

Role of research in shaping curriculum, Impact of technology on the statistic and probability curriculum, Innovative curricular practices, Teacher preparation and Statistical literacy.

For more information see

[http://hobbes.lite.msu.edu/~IASE\\_2004\\_Roundtable/](http://hobbes.lite.msu.edu/~IASE_2004_Roundtable/).

#### ICOTS-7, Working Cooperatively in Statistics Education, Salvador (Bahia), Brazil, July 2-7, 2006

The major aim of ICOTS-7 is to provide the opportunity for people from around the world who are involved in statistics education to exchange ideas and experiences, to discuss the latest developments in teaching statistics and to expand their network of statistical educators. The conference theme emphasizes the idea of *cooperation*, which is natural and beneficial for those involved in the different aspects of statistics education at all levels. The Conference will include keynote speakers, invited speakers, contributed papers, workshops and forums, demonstration lessons, roundtable sessions, poster sessions, and book and software displays. People interested in organizing a session or in presenting a paper are encouraged to contact the appropriate Topic Convener. More information is available from Carmen Batanero (batanero@ugr.es) and the IASE web site

<http://www.stat.auckland.ac.nz/~iase/> .

#### NEW IASE WEBSITE AT

<http://www.stat.auckland.ac.nz/~iase/>

One of our main priorities has been to enable you to quickly locate for download IASE publications and proceedings. There are already over 500 papers on the site. Use the left-hand panel of the Publications page to locate them. We also emphasize upcoming conferences with substantial statistics education content and other resources that are useful for teachers of statistics.

**Please visit the new site  
have a look at what is there.**